

1. Determine Z_i , Z_o and A_v for the network of Fig.1 if $I_{DSS} = 10 \text{ mA}$, $V_p = -4 \text{ V}$, and $r_d = 40 \text{ k}\Omega$.
2. Determine Z_i , Z_o , and A_v for the network of Fig.2 if $y_{fs} = 3000 \mu\text{S}$ and $y_{os} = 50 \mu\text{S}$.
3. Determine Z_i , Z_o , and V_o for the network of Fig. 3 if $V_i = 20 \text{ mV}$.
4. Determine Z_i , Z_o , and A_v for the network of Fig.4 .
5. Determine Z_i , Z_o , and A_v for the network of Fig. 5 if $r_d = 33 \text{ k}\Omega$.
6. Determine Z_i , Z_o , and A_v for the network of Fig.6 if $r_d = 60 \text{ k}\Omega$.
7. Determine V_o for the network of Fig.7 if $V_i = 4 \text{ mV}$
8. Determine Z_i , Z_o , and A_v for the amplifier of Fig. 8 if $k = 0.3 \times 10^3$
9. Determine the output voltage for the network of Fig. 9.68 if $V_i = 0.8 \text{ mV}$ and $r_d = 40 \text{ k}\Omega$.



